

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

10/518957

(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/105606 A1

- (31) International Patent Classification⁷: A23L 1/29
- (21) International Application Number: PCT/US03/19108
- (22) International Filing Date: 18 June 2003 (18.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/389,813 18 June 2002 (18.06.2002) US
- (71) Applicant (*for all designated States except US*):
MARTEK BIOSCIENCES CORPORATION [US/US];
6480 Dobbin Road, Columbia, MD 21045 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): ABRIL, Jesus, Ruben [US/US]; 6638 W. 98th Drive, Westminster, CO 80021 (US). STAGNITTI, George, E. [US/US]; 1912 Creekside Drive, Longmont, CO 80504 (US).
- (74) Agents: CONNELL, Gary, J. et al.; Sheridan Ross P.C., 1560 Broadway, Suite 1200, Denver, CO 80202-5141 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: STABLE EMULSIONS OF OILS IN AQUEOUS SOLUTIONS AND METHODS FOR PRODUCING SAME

(57) **Abstract.** Methods for making highly stable, oxidation-resistant emulsions comprising an oil, an emulsifier, an emulsion stabilizer and water are provided. The invention is particularly well suited for oils that are susceptible to oxidation, such as long chain polyunsaturated fatty acid oils. The resulting emulsion is highly stable and resistant to oxidation, and is useful in a number of products and as a stand-alone product.

WO 03/105606 A1